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## COMPOSITIONS AND METHODS FOR CANCER DIAGNOSIS AND THERAPY

### Abstract of the Invention

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The miR15 and miR16 micro RNA genes are located at 13q14 within a 30 kb region of loss characteristic of cells from certain cancers, such as cells from chronic lymphocytic leukemia or prostate cancer. Chronic lymphocytic  
10 leukemia or prostate cancer can be diagnosed by detecting a reduction in miR15 or miR16 gene copy number, by determining miR15 or miR16 gene mutational status, or by detecting a reduction in the RNA transcribed from these genes. The miR15 or miR16 gene products can inhibit the neoplastic or tumorigenic growth of cancers such as chronic lymphocytic leukemia or prostate cancer cells  
15 when administered to subjects suffering from these diseases.